

Oscillator Topology for Very Low Phase Noise Operation

Abstract

An oscillator circuit includes a tank circuit, first and second oscillator transistors, and a gain-cell tuning inductor. The tank circuit includes first and second ports, and is configured to resonate at one or more predefined frequencies. The first oscillator transistor includes first port, a second port coupled to the first port of the tank circuit, and a third port. The second oscillator transistor includes a first port, a second port coupled to the second port of the tank circuit, and a third port. The gain-cell tuning inductor is coupled between the third ports of the first and second oscillator transistors and is operable to conduct a biasing signal supplied thereto to the third ports of the first and second oscillator transistors.